Hy Tien Phan

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Summary

Experienced Software Quality Assurance Engineer with a strong background in testing across industries such as Pharmaceutical, Aerospace, and Medical Devices. Skilled in developing tailored test strategies and leading testing initiatives for complex systems, including ERP and IoT solutions. Proficient in both manual and automated testing methods, with expertise in System Testing, UAT, UI/UX, Integration, End-to-End and Regression Testing. Aims to leverage extensive QA experience to deliver high-quality, user-centric software products.

Skills

Core Competencies: Attention to Details, Documentation, Analytical & Problem Solving, Adaptability, Team Collaboration, Leadership, Patience, Resilience, Project Management, Communication, Customer-Focused.

Regulatory & Standards: 21 CFR Part 11, 21 CFR Part 820, IQ/OQ/PQ, GAMP 5, HIPAA, cGMP, GDP, GLP, AS9100D, DO-178B, ISO-9001:2008, ISO-9001, CMMI.

Software Development Lifecycle: SDLC/STLC, Agile/Scrum, Peer Review, Requirement Analysis, Quality Process, Test Readiness Review, Risk Analysis, Root Cause Analysis.

Testing Methodologies: Manual Testing, Automation Testing, BDD (Gherkin)/TDD, Scenario & Use Case, Test Plan/Test Cases, Systems Testing, End-to-End (E2E) Testing, Integration Testing, Regression Testing, User Acceptance Test (UAT), UI/UX Testing, Cross-Device Testing, Functional Testing, Cross-Browser Testing, Smoke Testing, Ad-hoc/Exploratory Testing, Mobile (iOS/Android) testing, Web Testing, Desktop App Testing, RESTful API Testing, Accessibility Matrixes (TM), Test Readiness Review (TRR), Computer System Validation (CSV) Practices, Software in the Loop (SITL) testing.

Platforms & Environments: iOS/Android Testing, Web/Desktop Testing, Linux, Unix, .NET, IoT/Bluetooth Low Energy (BLE)

Programming & Scripting: C/C++, C#, Java, OOD, OOA, Bash, PowerShell, Javascript, Python/Pytest

Tools & Technologies: PyCharm, Selenium WebDriver, SpecFlow+, Visual Studio 2017, Eclipse, IntelliJ, Azure DevOps ADO (Boards, Pipelines, Repos, Test Plans), Atlassian Jira, DOORS, SQL Server, MySQL, Test Management Tools (QMetry, Zephyr), MySQL Workbench, SQL Server Management Studio, LabWare LIMS, Sage X3 ERP, Postman/Restful API/JSON,Jmeter/Blazemeter, ChatGPT/OpenAI, Cypress, Git, GitHub

Training

RAG-LLM Evaluation & Test Automation: Udemy	Feb 2025
Learn Python in 60 Days: Udemy	Feb 2025
Introduction to Machine Learning Models (AI) Testing: Udemy	Nov 2024
Introduction to Testing AI Models, LLMs and Chatbots: Udemy	Oct 2024
Intro to OpenAI API - ChatGPT API for Developer: Udemy	Aug 2024
Learn JMETR from Scratch on Live Apps -Performance Testing: Udemy	Jul 2024
ChatGPT, Midjourney, DALL-E 3 & APIs - The Complete Guide: Udemy	Jun 2024
ChatGPT for Software Testing - Test Automation Use Cases: Udemy	May 2024
Postman API Testing - Step by Step: Udemy	May 2024
Cypress V6- UI Automation Testing + API Testing + Frameworks: Udemy	Jul 2021
Cypress - Modern Automation Testing From Scratch: Udemy	May 2021
Certified Software Test Professional (CSTP): testinginstitute.com	Oct 2010

Work Experience

Phillips Connect Technology — Irvine, CA
Software Application Test Engineer — Nov 2021 - Apr 2024

Established and spearheaded the development of an IoT Test Lab dedicated to comprehensive testing of Mobile Apps and diverse Gateway systems. Collaborated closely with the Project Manager to facilitate and drive Sprints from initiation to completion. Executed rigorous business analysis, crafted user stories, and implemented Behavior-Driven Development (BDD) testing techniques. Proficiently conducted testing: End-to-End (E2E), Regression, User Acceptance Test (UAT), Adhoc/Exploratory, and Smoke test, across both IoT devices, mobile apps and web platforms.

- Led comprehensive testing initiatives for IoT and back-office solutions in the transportation sector, defining and driving robust test processes across multiple integrated systems, resulting in software deliverables meeting high-quality standards.
- Defined and implemented test processes for IoT devices, mobile apps (iOS/Android), and web applications, ensuring software met quality standards and improved product reliability.

- Developed and maintained effective test plans and test cases focused on the integration of IoT devices, mobile apps, and web applications, identifying defects and significantly reducing post-release issues.
- Conducted hands-on testing of the integration between vehicle mobile apps and IoT devices within our Cloud Test Lab environment, ensuring seamless functionality across platforms.
- Collaborated closely with software development project teams to integrate testing methods and validate test cases for IoT devices, mobile apps, and web applications.
- Conducted Postman/Restful API/JSON testing using Postman to ensure the functionality and reliability of our services.
- Provided mentorship on efficient strategies and tools for achieving quality and testing efficiency goals specific to IoT, mobile, and web environments.
- Assisted with root cause analysis for missed or leaked defects in IoT, mobile apps, and web applications, implementing corrective actions promptly.
- Reported and triaged defects/issues related to IoT devices, mobile apps, and web applications promptly.
- Managed and administered the Cloud Test Lab infrastructure, ensuring seamless testing operations and minimizing downtime for IoT, mobile, and web platform.

Skills: *Mobile Testing (Android, iOS), Cloud Test Lab Administration, Behavior-Driven Development (BDD) (Gherkin), Database Management (MySQL Workbench), Project Management Tools (Atlassian Confluence, Jira), Test Management Tools (QMetry, Zephyr)*, Postman/Restful API/JSON, *Bluetooth Low Energy (BLE)*

Diskriter Inc.   Fountain Valley, CA
IT QA Analyst   Mar 2020 - Dec 2020
Championed the development and execution of comprehensive End-to-End (E2E) test cases for the OCSD Pretreatment system. This included overseeing the creation of 75 test cases to address iPACS's 78 requirements and 15 test cases for GovOnline's 140 requirements. Additionally, conducted thorough re-runs and validation of 47 test cases to meet Labware WebLIMS's 300 requirements.
- Test Planning and Execution: Designed test plans, Traceability Matrixes (TM), and strategies, developed, executed, and maintained UAT, End-to-End (E2E), and regression test cases ensuring comprehensive software coverage.
- Requirement Traceability: Established and maintained bidirectional traceability between software functional requirements and corresponding test cases.
- Defect Management: Owned the defect life cycle by submitting, verifying, and maintaining test defects to ensure timely resolution.
- Team Leadership: Led, coached, and mentored IT members in the development of User Acceptance Test (UAT) testing scripts, fostering a collaborative testing environment.
- Requirements Analysis: Collaborated with process owners to review and analyze software functional requirements documents, ensuring a clear understanding of testing objectives.

Skills: *User Acceptance Test (UAT), End-to-End (E2E), and Regression Testing (Manual). Traceability Matrixes (TM), Domain Expertise: LIMS (LabWare), GovOnline, iPACS, LabWare WebLIMS*

Sysazzle Inc.   Irvine, CA
Software Quality Assurance Engineer   Aug 2019 - Dec 2019
Developed and executed End-to-End (E2E) test cases for the Balt USA ERP systems, comprising a comprehensive set of 45 cases. These test scenarios were instrumental in validating key functionalities such as Order Processing (OP), Manufacturing (MFG), Purchase Orders (PO), and Quality Assurance (QA) processes.
- Designed comprehensive test plans, Traceability Matrixes (TM), and End-to-End (E2E) test cases for Order Management, Manufacturing, Purchase Order, and Quality Assurance processes within Balt USA's Sage X3 ERP system, ensuring thorough and efficient testing.
- Established and maintained consistent bidirectional traceability for seamless test execution and analysis, ensuring clear and complete flow-down of requirements to test cases.

Millennium Space Systems   El Segundo, CA
Flight Software Quality Assurance Engineer   Apr 2019 - Aug 2019
Introduced automation test cases into the Regression Test Suite, aimed at verifying and validating 350 default telemetry configurations within the spacecraft flight software.
- Supported the Flight Software Team in developing and testing software for Millennium Space Systems products, ensuring adherence to the software development lifecycle, which improved team efficiency and software reliability
- Designed test plans, wrote test cases, oversaw test strategies, and performed comprehensive testing for assigned applications, ensuring high-quality software delivery.
- Submitted and verified defects, meticulously documenting test results to facilitate debugging and software modifications, leading to improved software stability.

- Implemented quality assurance processes and identified areas for process improvement, enhancing overall software quality.
- Analyzed test results to certify existing functionalities and integrations, recommending corrective actions upon failures to ensure high-quality software.
- Improved the Software Development Process to meet AS9100D quality standards by implementing Agile/Scrum methodologies, resulting in higher compliance and efficiency.

Skills: *Linux, Software in the Loop (SITL) testing, Python, ProGen, C/C++. Git, Confluence, Jira*

Costar Group (Apartments.com)
Software Engineer in Test   May 2018 - Apr 2019
Directed the creation and ongoing maintenance of the Automation Regression Test framework, resulting in a notable increase in the success rate to 98%.
- Participated actively in sprint grooming, planning, and capacity discussions to ensure efficient test automation integration within the Agile workflow, improving team productivity.
- Designed, developed, and maintained robust automated test frameworks and scripts, driving automation strategy and progress across projects. Led and coached software QA engineers in developing and maintaining the Automation Regression Testing suite, enhancing test coverage and efficiency.
- Ensured all products conformed to business requirements, company policies, software quality standards, and established testing procedures by executing a suite of manual and automated tests covering functionality, data integrity, UI/UX, databases, Adhoc/ Exploratory test, Smoke test and End-to-End (E2E) scenarios across Desktop Web (Chrome, IE, Firefox) and Mobile Web (Android, iOS) platforms.
- Coached and mentored software QA engineers in automation testing script development, resulting in improved regression testing performance and team skill enhancement.
- Managed defects by submitting, tracking, and assisting in resolving production (maintenance) and release issues within the respective tracking systems.

Skill: Azure DevOps ADO (Azure Boards-Scrum, Azure Repos, Azure Pipelines, Azure Test Plans, Azure Test Plan), Data Validation, C#, Visual Studio S2017, Specflow+ (BDD, Gherkin), Agile/Scrum methodologies, Selenium WebDriver, database management tools (MySQL Workbench, SQL Server Management Studio), MS SQL Server.

Prolacta Bioscience Inc.
Software V&V and Compliance Engineer   May 2015 - May 2018
Managed the comprehensive validation process for the UniPoint software (eQMS) version 2015.5.0 upgrade, ensuring successful completion. Implemented an additional set of 40 regression test cases alongside the existing 45 User Acceptance Test (UAT) test cases. Played a key role in validating LIMS (LabWare) phase I, which seamlessly transitioned into production in December 2016. Provided leadership, coaching, and mentorship to the IT team, driving the adoption of Software Methodology best practices, enhancing SDLC processes, refining system test cycles and elevating overall application quality.
- Led software quality and compliance improvements by assessing deliverables and processes throughout the SDLC, ensuring compliance with FDA regulations (21 CFR Part 11, Part 820), CSV practices and HIPAA.
- Developed, reviewed, and approved V&V protocols, providing technical guidance on computer-related quality and regulatory issues within the SDLC and Prolacta SOPs.
- Participated in SDLC milestone reviews, ensuring clear traceability between requirements, software, and user acceptance testing.
- Reviewed and approved software documentation throughout the development and testing lifecycles, ensuring accuracy and compliance.
- Supported requirements, code, and documentation peer reviews, promoting first-time quality and adherence to FDA and company SOPs.
- Managed and witnessed software qualification and User Acceptance Test (UAT) tests, ensuring adherence to test procedures, complete requirements verification, and proper documentation and tracking of anomalies. Advocated for timely corrective and preventive actions, improving overall software quality.
- Collaborated with various departments (Business Owners, IT, QC, Lab, and Configuration Management) to ensure seamless software development and compliance, resulting in improved cross-functional communication and project efficiency.
- Evaluated software suppliers' overall capability and quality management systems through audits, product reviews, milestone reviews, and test witnessing, leading to enhanced supplier quality and reliability.
- Coached and mentored software QA engineers in User Acceptance Test (UAT) testing script development, resulting in improved testing efficiency and team skill enhancement.
- Developed and executed validation protocols adhering to IQ/OQ/PQ requirements and FDA guidelines for configurable off-the-shelf software. Authored a Standard Operating Procedure for Computer Software System Validation, ensuring regulatory compliance and process standardization.
- Led and coached software QA engineers in developing and maintaining the Automation Regression Testing suite.

- Designed and implemented Prolacta's Manufacturing Execution System (MES), improving production efficiency and compliance with regulatory standards.

Skills: *FDA 21 CFR Part 11, 21 CFR Part 820, ISO-9001:2008, cGMP, GDP, GLP, GAMP5, IQ/OQ/PQ, SOP Development, Test Plan/Case Development, User Acceptance Test (UAT), Validation Plan, Verification Cross-reference Matrix (VCRM), C#, Specflow+ (BDD, Gherkin), Agile/Scrum, Syncade (MES), UniPoint (eQMS), LIMS (LabWare), SQL Server Management Studio, MS SQL Server, Azure DevOps ADO (Azure Boards-Scrum, Azure Repos, Azure Pipelines, Azure Test Plans, Azure Artifacts),* CSV Practices.

Optomi LLC
Irvine, CA
Software QA Analyst (Automation)
Aug 2014 - Jan 2015

Guided the testing efforts for USTForms Wizard functionalities, spearheading the design and development of over 500 tests. Furthermore, integrated more than 50 Data-Driven test cases into the automated testing regimen.
- Designed, created, documented, and executed test cases, test procedures, and automated scripts for Bankruptcy Management Systems, leading to improved test coverage and defect detection.
- Developed and executed comprehensive software test plans to identify software issues and their root causes, ensuring high-quality software delivery and reducing post-release defects.
- Documented software defects using a bug tracking system, monitored bug resolution efforts, and tracked successes, ensuring timely resolution and reducing defect backlog.
- Actively participated in requirements, design, defect, and enhancement reviews, contributing valuable insights throughout the SDLC, which improved requirement clarity and design quality.
- Planned test schedules and strategies aligned with project scope and delivery deadlines, ensuring efficient test execution and timely project completion.
- Utilized Selenium WebDriver 2.0 and Firebug to automate UI testing, improving test coverage and reducing manual testing time. Developed test scripts using Eclipse Luna, JUnit 4.11, and Maven, ensuring robust and maintainable test cases. Managed test execution and defect tracking through Jira and Jenkins, enhancing project management and collaboration.

Skills: *Selenium WebDriver 2.0, Firebug, Test Development Tools: Eclipse Luna, JUnit 4.11, Maven, JRebel, Java, Jira, Jenkins*

SAIC
Huntington Beach, CA
Software Integration & Test (SIT) Engineer IV
Jul 2007 - Aug 2011

Led the completion of integration and testing for the SGUV and RBD (Rapid Battlespace De-conflict) project. Recognized as the most valuable Software Test Engineer in March and April 2011 for exceptional performance.
- Validated testing tools and environments to ensure compatibility with BCTM deployment architecture, leading to successful software installations and service checkouts.
- Integrated and tested software components, ensuring they met specified requirements and functioned correctly within the system, which improved system reliability and performance
- Configured and executed One Team Partner's (OTP) test procedure suites, ensuring compliance with requirements, which enhanced the accuracy of test results.
- Collaborated with OTP's development and integration teams to verify test procedures/scripts, resolve discrepancies, and assist with debugging software issues, leading to faster issue resolution and improved software quality.
- Worked with other integration team members to integrate and configure OTP software, ensuring it met quality standards before delivery to Lab Operations, which reduced post-delivery defects.
- Executed test procedures and regression tests, identifying defects in the integrated software, which improved software reliability and reduced downtime.
- Documented test results and status, providing feedback on the accuracy and clarity of test procedures/scripts, which enhanced testing efficiency and reduced errors.

Skills: *Software in the Loop (SITL) testing, Osaf Tested (Rti/HLA), C/C++, Perl, Clearcase, Clearquest, DOORS, XML, alongside SQA/Testing methodologies (Black Box Testing, Integration Testing, UI Testing, Data Validation). Further leveraged expertise in SOSCOE, Bash scripting, Red Hat Linux, VMWare, DB2 9.1, project management methodologies (Spiral/Scrum), and quality standards (CMMI/ISO 9000, IETM).*

Panasonic Avionics Corp
Lake Forest, CA
Staff Software Test Engineer
Nov 2003 - Dec 2005

Led the integration and testing efforts for the iBrowser System 3000i, overseeing the entire process from start to finish. Managed integration, systems testing, and User Acceptance Test (UAT) until completion. Successfully delivered the iBrowser System 3000i and interactive content to EVA Airways.
- Conducted comprehensive application development testing, including unit-level and system integration testing, for various In-Flight Entertainment (IFE) platforms, contributing to successful releases like the PAC iBrowser for System 3000i and interactive content for EVA Airways.

- Integrated and validated both internal and external software applications within the IFE systems, assisting the software development and interactive application test group in ensuring thorough testing for all interactive software products.
- Reviewed software application requirement documents for technical accuracy and compatibility with platform capabilities and specifications. Authored clear and concise test procedures for these applications, which improved testing efficiency and accuracy
- Analyzed, troubleshot, and meticulously documented all software issues encountered during testing. Generated detailed problem reports with comprehensive analysis to facilitate efficient resolution, leading to improved software stability and reduced downtime
- DO-178B Compliance: Adhered to the rigorous DO-178B standard for software development processes in aviation, ensuring the highest level of safety and reliability in IFE systems.
- Executed Black Box, Integration, and UI testing using Visual Studio 2017, ensuring software quality and reliability.

Skills*: Linux, LAMP Stack (Linux, Apache, MySQL, PHP), JMeter*

Adecco Engineering & Technical Services   Long Beach, CA
Sr. Software Development Engineer   Apr 2007 - Aug 2007
- Managed corporate location data to optimize the Points-of-Interest (POI) database for a car navigation system. This involved tasks like data import, export, validation, analysis, comparison, and integration from various sources.
- Designed, developed, and tested functionalities related to the POI database within the navigation system, leading to improved user experience and system reliability
- Analyzed and compared data from multiple sources to identify discrepancies, which helped in enhancing data accuracy and consistency
- Developed rules based on the analysis to improve data accuracy and consistency, resulting in more reliable navigation system outputs
- Conducted data verification through web and phone calls to ensure adherence to established rules and data integrity, resulting in improved data accuracy.

Skills: *C/C++, C#, Server 2005, T-SQ, Visual Studio .NET 2005, Visual Source Safe*

Tickets.com   Costa Mesa, CA
Sr. Software Development Engineer   Dec 2005 - Jan 2007
- Performed detailed design, implementation, and documentation of assigned software modules, enhancing code quality and maintainability
- Integrated software modules developed by other team members, ensuring seamless functionality and reducing system errors
- Successfully implemented Gift Card and Auction functionalities, improving user engagement and transaction capabilities.
- Participated in the Software Development Lifecycle (SDLC), contributing to various stages from planning to deployment, which improved project efficiency and delivery timelines
- Participated in short-term planning of IT projects and programs, contributing to effective project management, resulting in timely project completions.
- Collaborated in group design sessions, fostering a collaborative development environment, which improved team productivity and innovation.
- Conducted requirements analysis, breaking down tasks and ensuring project alignment with business needs, leading to more accurate project scopes and reduced rework.
- Led testing and quality assurance efforts, utilizing User Acceptance Test (UAT)/UI/UX testing, smoke testing, and end-to-end testing to ensure software reliability and user satisfaction.
- Prepared comprehensive test plans, ensuring thorough software testing, which resulted in a significant reduction in post-release defects.
- Performed system integration testing using C/C++ on HP/UX and Linux, identifying and resolving integration issues, which improved system stability and reduced downtime.

Skills*: Programming Languages: C/C++, Operating Systems: HP/UX, Linux, Version Control: CVS, Software Development Methodology: MVC*

Dassault Systems   Irvine, CA
Sr. Software Development Engineer   Apr 2000 - Apr 2003
- Designed, developed, and integrated the company's X-Sight Server software, improving system reliability and demonstrating a comprehensive understanding of the development lifecycle.
- Expanded the software's functionality by adding new modules, enhancing user experience and maintaining robust codebases
- Configured Apache and Tomcat servers, ensuring optimal performance and security for the X-Sight Server application.

- Integrated Xerces (DOM) and Xalan (XSLT) for new development projects, demonstrating proficiency in XML processing technologies.
- Optimized software development processes on Solaris platforms, increasing development efficiency.

Skills: *C/C++ with Standard Template Library (STL), Java, Scripting: Korn Shell, Web Development: XML, XSL, HTML, JavaScript, Solaris, Windows 2000, Development Tools: Visual C++, GNU g++, Ant, Server Technologies: Apache, Tomcat, IIS 5.0, XML*

Mattel Inc.   El Segundo, CA
Specialist Application Systems   Apr 1999 - Apr 2000
- Designed, customized, and integrated Mattel's Product Data Management (PDM) systems using Metaphase, which expanded functionalities and improved efficiency in managing product data.

Skills: *PDM Systems: Metaphase, Database Management: Oracle, PL/SQL, Programming Languages: C/C++, C Shell, Operating Systems: Windows NT), Solaris, HP/UX, Software Development Methodology: OOA/OOD*

Southern California Edison (SCE)   Covina, CA
Application Developer 3   Apr 1998 - Apr 1999
- Led Y2K Compliance efforts by preparing and implementing a Y2K test plan for the MDMA system, ensuring successful certification and reducing risks associated with the year 2000 transition.
- Designed, developed, and maintained the MDMA systems, demonstrating a full understanding of the software development lifecycle, which improved system reliability and user satisfaction.
- Provided ongoing support for the MDMA system in a production environment, ensuring smooth operation and minimizing downtime.

Skills: *Pro C/C++, Embedded SQL, Oracle 8, Scripting: Korn Shell, Operating Systems: HP/UX, Windows NT, Makefile, OOA/OOD methodology.*

Siemens PLM   Costa Mesa, CA
Software Engineer   Apr 1991 - Apr 1998
- Designed and implemented the Benchmark API Tools (BAT), enabling developers to monitor code performance, improving development efficiency
- Designed and implemented an IP resources table accessible through a web browser, facilitating collaborative editing within the IP group.
- Enhanced and revised testing scripts to ensure defect-free software builds and timely image shipment.
- Streamlined the IP cycle to achieve monthly integration, leading to faster integration times
- Designed, revised, enhanced, and maintained the Drawing Layout within the Drafting modules. Performed unit and API testing, resulting in a user-friendly drafting package.
- Maintained the Drafting modules for Unigraphics by performing regular updates and troubleshooting issues, ensuring their smooth operation and reliability.

Skills: *C, C++, Perl, FORTRAN, tcl, Korn Shell, C Shell, Operating Systems: HP/UX, Solaris, SGI/Iris, IBM/AIX, VAX/VMS, Window NT, Development Tools: Makefile*

Manufacturing and Consulting Service Inc. (MCS)   Scottsdale, AZ
CAD/CAM Scientist   Apr 1986 - Apr 1991
- Led initiatives to improve user experience by gathering feedback and implementing changes, enhancing overall user satisfaction.
- Enhanced, maintained, and implemented user-interface functions, resulting in a more user-friendly system with an integrated online tutorial.
- Prepared user manuals for each newly developed module, including a Quick Reference Guide for ANVIL-5000's menus, improving user understanding and efficiency.
- Revised and enhanced the database for geometry and solid entities, leading to a significant 45% reduction in storage space.
- Maintained and improved curve and surface evaluators, achieving a 35% performance boost in speed.
- Designed and developed an external ETL (Extract, Transform, Load) interface for IGES and VDA standard neutral formats, allowing users to run the preprocessor and postprocessor externally, which improved workflow flexibility.

Skills: *C, FORTRAN, HP/UX, Solaris, SGI/Iris, IBM/AIX, VAX/VMS, Korn , shell, C Shell, Makefile (assumed), Software Development Methodologies: Project Management, SQA Integration, System Testing, Technical Communication: User Manual Development*

Education

West Coast University

MS, Computer Science, Artificial Intelligence, GPA: 3.8 Los Angeles, USA

West Coast University

BS, Computer Science, Computer Graphic/Database, GPA: 3.6 Los Angeles, USA